Education Activity Discerned through Presentation at the Frontier in Education

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Abstract The higher education becomes more important in comparison with former years. The society of the study of the Frontier in Education has been held 9 times, since the first society was held on September, 2002. The main aims of the Frontier in Education are to keep the record of progress of education, and to evaluate the educational activity of a faculty member highly. Here, the subjects and the current topics presented at the Frontier in Education are summarized. The 125 presentations are classified according to the subjects. Then some interesting presentations are introduced.

Keywords: Frontier in Education, higher education, JABEE, online lecture, evaluation, curriculum

1. Introduction

Recently, importance of education gradually becomes to be recognized in the higher education, though only the research activities have been used for the evaluation of a faculty member. The globalization and the standardization of higher education have been advanced by the Japan Accreditation Board for Engineering Education (JABEE), established on November 19, 1999. The JABEE was admitted to full signatory status of the Washington Accord on June 15, 2005. Furthermore, the distance lecture using internet has been recognized as credits for graduation since March 30, 2001. The construction of cooperation system between an institute of higher education and a high school (or junior high school) becomes to be recognized as an important issue, also.

As mentioned above, the education becomes further more important in comparison with former years. The society of the study of the Frontier in Education has been held 9 times, since the first society was held at Kumamoto on September 20, 2002. The main aims of the Frontier in Education are to keep the record of progress of education, and to evaluate the educational activity of a faculty member highly.

Here, subjects and the current topics presented at the Frontier in Education are summarized. The 125 presentations are classified according to the subjects. Then some interesting presentations are introduced.

2. Subjects of Presentation at the Frontier in Education

The 125 presentations have been done during the 9 times’ societies of the study of the Frontier in Education since the first society on September, 2002. The host universities were Kumamoto, Niigata, Tokushima, Saga, Okayama, Chiba, Yamagata and Nagoya Universities. The classification of presentations is thought to be complicated. From a viewpoint of the education method, those presentations should be classified into the groups of distance education, project education, lecture method, self-instruction, computer-aided education and others. From a viewpoint of the education target, university, graduate school, professional school, lifelong study, employee education, high school students and others; from a view point of the education evaluation, JABEE, lecture evaluation and others; from a viewpoint of the education content, curriculum, experiment, exercise, graduation research and others. It is considered after making many figures that two kinds of classifications for the 125 presentations are proper.

Figure 1 shows the result of the curriculum-based classification for 125 presentations at the Frontier in Education. The curriculum is composed of the professiona lecture, student experiment and exercise, the cooperation education with high school or company, information literacy and others. The others include English, graduate school and the subject relating to overall curriculum. The ratio of the number of presentation for each classified subject on 125 is shown in Fig. 1. The faculty member presenting at the Frontier in Education makes every effort to improve the education especially in lecture, experiment, exercise, cooperation and information literacy.

Figure 2 shows the result of the topics-based classification. The topics are composed of improvement of education method, information technology (IT)-aided education, manufacturing (hands-on training), JABEE and others. The others include evaluation, faculty development and orientation. The faculty member makes every effort to innovate the education method, to use IT for effective education, to construct hands-on training program and to be recognized as a JABEE program.

These steady efforts for the improvement of education will cause the excellent results for higher education. The continuation of the society of the study of the Frontier in Education will important to improve education and to change the experience each other.

3. Progress of Higher Education

Several interesting presentations at the Frontier in Education are introduced here.

“Improved Students’ Communication Skills in English through
"Continuous Execution of JABEE Program-Activity of JABEE Working Committee" by Okayama University(2)

The necessary activities which match to the JABEE criteria and the continuous improvement of engineering education (spiral up) were described. Also, this report shows activities for continuous execution of JABEE program by JABEE Working Committee after the accreditation by JABEE.

"The Practice of Hands-on Education for Creativity" by Tokuyama College of Technology(4)

The curriculum was improved to include Hands-on education. The contents consist of creative experiment, production and announcement. Many students recognized the importance of the creativity.

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References


Fig. 1. Curriculum-based classification for presentations at the Frontier in Education

Fig. 2. Topics-based classification for presentations at the Frontier in Education

Extensive Reading" by Toyota National College of Technology(1)

The students' communication skills in English have improved very much by introducing Extensive Reading courses. All students can attain a 450 TOEIC score.

"Online Lecture of Laser Engineering using Streaming Technology" by Kumamoto University(3)

The online lecture has been done for the undergraduate students instead of the normal lecture in class. All students can learn the laser engineering anytime and anywhere. The results of the questionnaire survey show that the students prefer the online lecture to the normal lecture.